THE

BOSTON MEDICAL AND SURGICAL JOURNAL.

NEW SERIES.] THURSDAY, AUGUST 27, 1868. [VOL. II.—No. 4.

Original Communications.

TUBERCULOSIS AND PULMONARY PHTHISIS. A CRITICAL REVIEW.

By E. BOISSEAU, Professor Agrégé at Val-de-Grace. Translated from the Archives Générales de Médecine, by J. H. DOUGLASS, M.D., of New York.

WE should not be surprised at the great number of works upon pulmonary phthisis which have appeared during the last few years, for it was very evident that the subject had by no means been exhausted; that more than one blank remained to be filled, more than one doubtful point to be elucidated.

In fact, what do we find in classical books upon *pulmonary phthisis?* What else than a pathological anatomy based upon the fact that tubercle is always a primordial lesion, from which all the rest are derived; a semeiology beyond criticism, but an etiology faulty, in which are found causes most incongruous and often very insignificant; hypotheses upon the intimate nature of the disease; a prognosis always fatal; a prophylaxis without any solid foundation, and consequently without influence; and, finally, a treatment given up to all the vagaries of empiricism.

We are inevitably brought, then, to renew our studies of this terrible disease, which Laennec seems to have taught us to recognize with greater certainty, only to prove to us the better how powerless we were.

The microscope had rendered science too great services not to be employed upon this subject. Hence doctrines founded upon pathological anatomy soon arose, which only had the effect of destroying the work of Laennec, reducing it to an hypothesis. For more than forty years it was considered a well-established fact that tubercle constituted in all cases the anatomical characteristic of pulmonary phthisis, and now this fact is attacked upon all sides. From the same means of investigation different conclusions have been drawn, so that the question, instead of being cleared up and simplified, has become complicated and obscure. The result has been that, while attempting to demonstrate more clearly the unity of the disease, it has been placed in doubt. By restricting the name of tubercle to gray granulation, by eliminating from tuberculous products everything which was not granulation, the tuberculous nature of phthisis has been contested when the type element has not been found. When it was stated that the caseous products were not special to the degenerating metamorphosis of the granulations, it was thought that they might be considered as independent of them, even when granulations and the caseous products were found together. Hence sprang all the new doctrines.

According to the Strasbourg school, there are two distinct kinds of phthisis:—1. The connective tuberculous phthisis of Laennec; 2. The epithelial, caseous phthisis, tuberculide.

Niemeyer, in his "Clinical Lectures," admits three principal forms:—1. Phthisis resulting solely from pneumonic processes; 2. Phthisis consisting from the beginning of a tuberculosis of the lungs; 3. Phthisis consisting primarily of a caseous pneumonia, and consecutively of a tuberculosis.

Finally, in a recent work, M. Ch. Bouchard seems disposed to admit four forms: 1. Tuberculosis without caseous pneumonia; 2. Caseous pneumonia without tubercles; 3. Tuberculosis primitively and caseous pneumonia consecutively; 4. Caseous pneumonia primitively and tuberculosis consecutively. It would be difficult to be more eclectic, and yet we are still far from the fourteen forms of Portal, the sixteen of Morton, the twenty of Sauvages.

The innovators have all formularized their doctrines from data furnished by pathological anatomy and by practice, and it is by placing ourselves in this double point of view, that we in our turn shall study, or rather discuss the question.

In order to limit the debate as much as possible, we can, from the pathological point of view, reduce the problem as follows:—Are tubercular granulation and caseous pneumonia independent of each other, and if there are any relations be-

tween these two products, what are they? And, first, do all agree, even now, as to what is understood by tubercle? For the German and for most French micrographs, granulation remains the type, but caseous transformation being one of the normal phases, fatal even to the evolution of granulation, it would not be altogether reasonable to take from it the name of tubercle, even when it has undergone this metamorphosis. To restrict, then, the name of tubercle, as Virchow has done, to gray granulation, does not seem to me possible, and to make of this granulation a special product, absolutely distinct from yellow tubercle, as M. Empris has done, does not appear to me admissible.

Gray granulation, it is necessary to say, is not the only product capable of undergoing caseous transformation; there are others of a distinctly different nature (tubercles of glanders, syphilitic, gummy tumors, cancerous tumors, hæmorrhagic infarctus, &c.) which can pass through identically the same transformations.

When Lebert believed he had discovered the tuberculous globule, the difficulty would have been solved had he not been the victim of an illusion; but it still exists, and we possess no criterion which enables us to distinguish a caseous tubercle from a miliary caseous nodosity of an inflammatory origin.

This being stated, what, then, do we find in the lungs of persons who die of chronic pulmonary phthisis? More or less extensive caverns, a greater or less amount of caseous products, and often, also, granulations.

MM. Herard and Cornil declare that they found, in all cases in which they made an autopsy, tuberculous granulations and also caseous broncho-pneumonia.

M. Villemin, who believes tubercles may be present in the lungs under three forms—granulations, nodules and infiltrated masses—found two forms of the process, or even all three at a time.

If we judge from the little value Niemeyer gives to the chronic pneumonic processes which, he says, ordinarily show a well-marked tendency to recovery, he has not often made the autopsy of persons who have died of simple caseous pneumonia. Most of them had the misfortune to become tuberculous, since it, according to him, is the greatest danger which threatens those afflicted with phthisis.

Although tubercles are for Lebert more frequently the consequence than the cause of chronic disseminated pneumonia (caseous phthisis of authors), he does not doubt the frequent coëxistence of granulations and caseous products.

Consequently we can say with a great number of authors: *at the autopsy of those who have died from phthisis, we ordinarily find both granulations and caseous masses.*

M. Ch. Bouchard, generally agreeing with the Strasbourg school, is of a contrary opinion. According to this observer, we often find consumptives who succumb rapidly to the destructive processes of the lungs, or who die after having carried caseous masses for years, and in whose lungs no miliary granulation can be found.

But it is impossible to deny as it is impossible to prove anatomically that a mass of caseous pneumonia had primitively as centre a gray granulation, the two products being capable of fusing into one common caseous mass.

In chronic disseminated pneumonia from mechanical cause, of Lebert, the charcoal or some other particle is present, and if in chronic disseminated pneumonia without mechanical cause (phthisis of authors), we do not find granulations, we are not on that account authorized to deny that they never existed. The persistence of a cause is not indispensable to the acknowledgment of its effects.

Were it not that this fact is of a nature to suggest difficulties, I should no longer consider it, because that similarity of appearances which at a given moment exists between caseous pneumonia and tuberculous granulation led Laennec into error.

I agree with Lebert that undoubted tubercles found in other organs than the lungs are not sufficient to solve the question, and I shall confine my examination to those cases in which granulations and caseous products coëxist in the lung itself, cases which, as we have seen, are the most common.

The question in dispute is, then, reduced to the following:—Are the miliary nodules which are met with in the midst of pneumonic processes the distinct inflammatory products of tuberculous granulations? M. Chas. Bouchard does not doubt it, and he thinks Drs. Herard and Cornil have called that *tuberculous* which should have been called *inflammatory.*

All diffused masses quite separated from each other, without trace of degeneration towards the centre, are considered by Dr. Bouchard as a simple inflammatory product; granulation, besides its seat, form, and volume of its elements, being characterized by the very close grouping of the

nuclei of which it is composed, their fatal and very rapid tendency to mortification.

The globular cells with nuclei, which are formed in the nodules, can attain from 0mm,012 to 0mm,015, while those of granulations do not exceed 0mm,008. Regarded as to dimensions, a few thousands of a millimetre is all the difference between the cells.

These characteristics, "without which there are no points of departure," have not appeared sufficient to most micrographists. Lebert declares that the microscope gives no satisfactory results.

M. Villemin, examining these miliary nodosities at the commencement of the process, has found elements absolutely identical in form, dimensions or other characteristics with those which are developed in the proliferating zone of tubercles of the serous, of the mucous membranes, &c. Yet, what are the anatomical elements which proliferate to produce inflammatory nodosities? The vesicular epithelium, according to the partizans of caseous, epithelial phthisis.

But M. Villemin, in an article published in the *Archives Générales de Médecine* for 1866, has demonstrated that the existence of this epithelium is very problematical, and Mandl, since 1857, has arrived at about the same conclusions. Lebert says he has sought in vain for it in the adult. At the International Congress, Badoky, of Pesth, presented some very beautiful preparations tending to demonstrate the non-existence of this epithelium.

If this opinion is correct, and for reasons too numerous to give here, I am quite inclined to think it is, it is impossible to attribute miliary nodosities to the proliferation of the vesicular epithelium.

But, even admitting the existence of this epithelium, the cause of caseous phthisis does not appear to be strengthened by it.

Lebert, who regards inflammation of the alveoli (alvéolite), otherwise called vesicular pneumonia, as the most frequent anatomical form of pulmonary phthisis, is far from making this pneumonia consist in the simple proliferation of an epithelium, the existence of which has, moreover, never been positively established. The proliferation of the connective tissue also has its part as well as the proliferation of the epithelium, and the interstitial and peribronchial connective tissue furnish elements entirely like those of true tubercle, true tuberculous granulations, if they can be judged of by microscopic examination. But the Professor of Breslau denies their tuberculous character, because they are surrounded by a connected irritation of a diffuse interstitial pneumonia.

As no one has ever denied that tuberculous granulations could provoke about them precisely the same irritation, this differential characteristic appears to me, then, insufficient.

Lebert, as we have just seen, considers that the miliary nodules are developed as tuberculous granulations, not in the epithelium, but in the connective tissue.

M. Villemin, more precise, has demonstrated that very often these same nodules result from the proliferation of the nuclei of the connective tissue, enclosed within the alveoli.

We see, therefore, nodules, or rather cellular proliferations which are developed in the same anatomical elements as tuberculous granulations, which to the naked eye differ only in their greater size, which cannot be separately distinguished by the microscope, and still are not identical. When I have added that, according to Lebert, true tubercle is a granulation composed of a proliferation in all respects similar to inflammatory, non-suppurative hyperplasia of the connective tissue, I believe I may be permitted not to know upon what a distinction is based.

The nodules and granulations may, then, be considered to be two forms of one and the same process.

Is it necessary for us, on this account, to admit, with M. Villemin, that all the caseous products are the result of the transformation of granulations, of the inspissation followed by the caseous metamorphosis of pus remaining in the pulmonary tissue? I think not.

While the tuberculous granulations are forming there is irritation of all the connective and epithelial elements which are found in their neighborhood; to use an expression of Lebert's, an alveolitis is developed. The vesicular epithelium, if there is such a thing, proliferates; but there is, very surely, hyperplasia of the epithelium of the terminal bronchi, which increase and multiply towards the alveoli, and end by filling them.

The opinion which I am tempted to adopt is, then, neither that of M. Villemin, which seems to me to have restricted too much the part of the bronchial epithelium, nor that of MM. Herard and Cornil, who derive the caseous products, for the most part, from the hypergenesis of the cells of the vesicular epithelium.

But this being understood, I can nevertheless associate myself with these latter

authors in saying that *pulmonary phthisis is both connective and epithelial.*

The coincidence of caseous products and granulations is so frequent that Niemeyer, obliged to recognize it, does not regard it as accidental, but is forced to admit a *causal* relation between the two. But, according to him, in the majority of cases, tubercles are developed tardily, and only complicate pulmonary phthisis at an advanced period. This has led him to the conclusion, somewhat unexpected, that pulmonary phthisis cannot, therefore, be considered as a tubercular phthisis properly so called, notwithstanding the presence of tubercles in the lung. Badoky partakes of this opinion, and also thinks that generally the caseous masses are primitive, and that they provoke the appearance of tubercles.

Niemeyer, however, furnishes us the argument whereby to combat himself. He could not fail to remark the singular distribution of tubercles which are most frequently found exclusively situated in the immediate neighborhood of caverns and caseous deposits. If the deductions, then, which we have just drawn have been followed with attention, it will be instantly seen that this fact alone is sufficient to clear up the whole question. In fact, the inflammatory miliary nodules not being distinguishable from true tuberculous granulations, these nodosities, when they have undergone fatty transformation, can no longer be distinguished from the caseous products resulting from a chronic pneumonic process, and it seems to me perfectly simple and rational to admit that the peripheric granulations are the latter, and nothing more.

The best proof, says M. Colin, that pulmonary phthisis, taken in the largest acceptation of the word given to it by Laennec, is of the same family as granular phthisis, is, that in cases where pulmonary phthisis becomes acute (galloping consumption), we always find about the caverns and tuberculous masses a crop of gray granulations identically like those of acute tuberculization.

Dr. Bidlot, of Liege, has described, in a recent work, under the name of *accidental* or *false phthisis*, a consumption, characterized, according to him, by inflammatory pseudo-tubercles. This kind of phthisis should be perfectly separated from *real* phthisis resulting from the evolution of true neoplastic tubercles.

But if, according to this author, pseudo-tubercles cannot be distinguished from true tubercles when they have both undergone caseous transformation, it is only during the first period of phthisis that it is possible to recognize many species of it.

Besides, accidental phthisis, in consequence of the prolonged deterioration of the economy, occasions, most frequently according to M. Bidlot, the production of neoplastic tubercles, whilst the true tubercles of real phthisis induce inflammatory irruptions, the exudations from which are transformed into false tubercles.

When I shall have recalled that even before the period of softening, the distinction between the true granulation and the inflammatory miliary nodule (pseudo-tubercle) has been declared impossible by the ablest micrographists, it seems to me that I am authorized in not accepting the divisions adopted by the physician of Liege.

Consequently, if the anatomical demonstration of the preëxistence of tubercular granulation is not always possible, still no fact seems unfavorable to this opinion.

Finally, MM. Herard and Cornil think that the special pneumonia which accompanies the granulations plays the principal rôle in consumption, and it is necessary to attribute to it almost entirely the more or less rapid and more or less extended destruction of the pulmonary tissue.

This theory, very plausible, but which is for its authors themselves only a gratuitous supposition, should have the merit of conciliating opinions and conduct to the unity of the disease.

[To be concluded.]

ON CERTAIN NEW SURGICAL INSTRUMENTS AND APPLIANCES.

By Francis H. Brown, M.D., Boston.

As I feel it the duty of every practitioner to add whatever he can, however small, to the common property of the profession, I venture to describe some instruments which have come under my notice recently. Not that they are all strictly new—but they are, as far as I know, as yet unused in this neighborhood, though samples of some of them are in the possession of one or more of our New England men. They are all instruments of value, and to members of the profession, specialists or general practitioners, will prove useful in alleviating, in one way or another, some of the ills of humanity. The instruments have been brought to the notice of some of the instrument makers of this city, and a part of them have already been manufactured and are ready for use.

Tongue Depressor or Spatula.—It consists of a firm handle of hard rubber or ebony, having a hook at the lower end to give greater security of grip; from the top of the handle rises a rod which is bent at a right angle, and then—appropriately curved to avoid the teeth—is secured to a plate of proper form to be applied to the tongue. In some of the instruments adjustable blades are provided, in order to a more ready application on either side, or for the mouth of children or adults. This instrument is the one most commonly employed in Vienna, and possesses great advantages over the form in general use here. By the shape of the handle, it enables the operator to get a much more secure grip and to apply a greater force to the muscles of the tongue, which are sometimes so strong and unyielding. The peculiar bending of the rod allows it to escape the incisor and bicuspid teeth, and the adjustment of the beak gives a *flat* pressure on the tongue, in place of the insufficient pressure of the common instrument. Moreover, the position of the handle and the twist in the rod keep the instrument at the *side* of the mouth and entirely out of the way of the surgeon in any operation.

Porte Aiguille, for metallic sutures in staphyloraphy, vesico-vaginal fistula, etc. Many varieties of this instrument have been made, each one making some advance and presenting new excellencies. In the last one which has been used in this country, the wire is propelled through the instrument and canulated needle by means of a slide, roughened beneath, where it is in contact with the wire. In the instrument now made the slide is replaced by a small wheel, grooved and roughened on its circumference, by the use of which much more power is exerted on the wire and a much longer portion is thrown forward at each movement of the thumb. Needles of various shapes accompany the instrument.

The objection raised by a friend a few days ago that the wheel might fail to throw the wire through the needles bent at a right angle seems to me invalid. The wheel is made of hardened steel, and its "bite" on the soft wire is ample to throw it forward for an indefinite time. The needles bent at right angles *must* be used in certain operations, and no instrument which has been made can propel the wire more certainly than the one now noticed. In the case in question, I think the suture had been drawn too far back, and in its progress impinged on the end of the needle itself. It is entirely unnecessary that the wire should be drawn so far back—in fact, the extremity of the suture should be placed in the canulated needle, before the latter is put into the instrument.

Atomizer for the Eustachian Tube.—When we have arrived at a point which enables us to diagnosticate between diseases of the ear proper, "nervous deafness," so called, and diseases affecting the tympanum, the ossicula or the membrane of the tympanum, it is time for us to reject the old and sole treatment by the syringe and a drop of glycerine, as well as the theory that all ear diseases will either get well of themselves or not get well at all, and devote ourselves to the refinement of treating the disease, wherever it may exist, locally and particularly; and it is for the purpose of treating that class of ear diseases which affects the Eustachian tube and the cavity of the tympanum that this instrument has been devised by Dr. Bishop, of London. Incredible though it may seem, there is no doubt that the vapor, appropriately medicated, as it may be, *does* reach the Eustachian tube and the tympanum itself, and the most desirable results are obtained. The apparatus consists of a common Eustachian catheter, a small glass syringe, and the usual bulb employed with atomizers. I quote Mr. Bishop's description: "The solution, contained in the syringe, is gently forced, guttatim, into a cylinder, and at the point where it leaves the syringe it is caught by a current of the air sent by a pump worked with a proper degree of force by the hand. This drives the fluid forward in a pulverized state. This small apparatus is then attached to an ordinary Eustachian catheter, previously introduced, and suspended by a suitable apparatus. To ensure complete pulverization, the end of the catheter is covered with a fine gauze wire. Some amount of dexterity is required in the successful use of this instrument, but this is soon accomplished by any one accustomed to the introduction of the catheter."

Dressing Basin.—Though an humble, this is certainly a very excellent and useful implement for surgeons, and especially for hospitals, for the dressing of wounds in all parts of the body. It consists of a basin an inch or two in depth, made of brass or tin, and kidney shaped, its edges bevelled, so as to be firmly applied to the surface of the body. It is especially useful for syringing the ear or applying lotions to that organ; but can also be used in all dressings, in opening abscesses, syringing out sinuses, &c., in every part of the body; its peculiar shape rendering it easily applicable to either

of the limbs, to the chest or abdomen, at will.

Recurrent Syringe.—In looking over the stock of Mathieu, I found what he called a recurrent syringe. It is simply a hard rubber syringe, holding hardly more than a drachm, to which is attached a small ivory tube, two and a half inches long. The tube terminates in an olive shaped bulb, just below which are three small holes. The design of the instrument is to apply it in gonorrhœa and other cases of urethritis, with the view of washing the contents of the canal *out* rather than *in*. The diminutive size of the syringe, however, the shortness of the tube and the smallness of the apertures, render the instrument almost worthless. Believing that a valuable principle was contained in the idea, I caused an instrument to be made, which I think may be successfully applied in the diseases mentioned above. It consists of a silver tube, five inches long and of the size of a medium catheter, having the same olive-pointed extremity, beneath which are two sufficient orifices. This is attached to a Davidson syringe, and—after the patient has passed his water, in order to remove any accumulated pus or mucus—is passed into the urethra. Water, warm or cold, and medicated fluids to any amount and for any length of time, can then be applied to the urethra, without removing the canula, and the irritation, consequent on the passage back and forth of an instrument holding so small an amount as that of Mathieu, is avoided.

Tissue Rubber Cots.—It constantly becomes necessary for us to use the hands where they come freely in contact with the natural or unnatural fluids of the body, and when the hands are injured in any way and any open wound exists, such contact becomes absolutely dangerous; at the same time, it is essential, especially in midwifery, to retain, unimpaired, the sense of touch. To this end the French fabricants will make to order a cot of tissue rubber, which applies itself tightly to the finger, and does not materially interfere with the sense of touch. Secondly, as personal experience has shown, if a poultice be needed, the cot, by retaining the heat and moisture of the finger, forms a very neat, handy and efficient substitute for that usually clumsy surgical appliance.

Lithexer. (Robert and Collin.) This is a very simple and most efficacious instrument, very recently devised by M. Collin, for removing the debris of a calculus after lithotrity. It consists of a silver catheter, passing, by its distal extremity, through the bottom of a four ounce vial. To the top of the bottle is applied a rubber bulb. To employ it, water is first passed by the catheter into the bladder; the bulb, being then compressed and adjusted to the bottle, is allowed to recover its natural size, and, in doing so, draws a portion of fluid from the bladder with fragments of the calculus. These fall into the bottle and are retained, while the fluid is forced back into the bladder by subsequent pressure on the bulb, again to serve its purpose of raising more fragments, which are in turn deposited in the bottle. The process is continued till the debris is entirely removed.

Hospital Reports.

BOSTON LUNATIC HOSPITAL.

C. A. WALKER, M.D., Superintendent. Reported by T. W. FISHER, M.D.

Cases of General Paresis.

(Concluded from Vol. I., page 364.)

CASE VI.—Mr. L., 36 years, soldier, single, a steady drinker. A year ago, became very irritable and unreasonable, taking a strong dislike to his relatives. Has not been under their observation since. Has done little or no work, on account of feeble health and the loss of an arm in the war. Two or three days ago, felt a "weakness," while in the street, and called a hack to take him home. Fell on the door-step, and became unconscious. In the morning was delirious, insisting that there were thieves in the house.

On entrance, Nov. 2d, seemed tolerably rational, but not inclined to talk. Speech very tremulous, and hesitating badly at certain words. Walks feebly, and with a slouching gait unnatural to a soldier. Seems to be apprehensive of danger, and has hallucinations of sight and hearing. Acts like a man in delirium tremens at times, but is not altogether sleepless.

Nov. 7th.—Tolerably quiet till to-day, when he was found stripped to the waist, expecting a flogging. Fell, on being led to his room, and was seized with a violent trembling. Says he feels something like a "small bladder" in the palm of his hand and in the end of his stump.

Nov. 18th.—Apprehensions, hallucinations and trembling continue, more or less marked. Speech very broken, and strength failing. Is constantly uneasy and eats and sleeps very irregularly.

Nov. 30th.—Died of exhaustion.

Autopsy. — Calvaria thick and dense, with strong adhesions of the dura mater. Arachnoid tough, and slightly opaque, with a moderate effusion beneath it. Pia mater congested with a patch of extravasated blood on the right hemisphere. Grey matter dark and thick, and sulci deeply penetrating. Brain firm, with numerous puncta of bright blood. Other portions and organs were normal.

Case VII.—Mr. N., 55 years, deaf mute, temperate, and no insanity in family acknowledged. Has been losing strength for some months. On entrance, Nov. 25th, is restless and wandering aimlessly about with a shuffling step. When asked where he is, in writing, manages to write in a sprawling hand some irrelevant answer. Can use the deaf and dumb alphabet slowly.

Dec. 15th.—Wanders constantly about the hall, undressing himself at the wrong time and getting into the wrong beds. Falls occasionally, from weakness. Use of the deaf and dumb alphabet becoming difficult, but spells out various delusions. Thinks the water in the harbor is heated by subterranean fires, for use in the bathing-room.

Jan. 14th.—Changed suddenly this morning, and died exhausted. No autopsy.

Case VIII.—Mr. S., 45, artist and musician. No insanity in family. Not intemperate, but a good liver and fond of female society. First evidences of insanity were noticed in connection with a new branch of his art. He worked with great enthusiasm and actually produced unusual effects, under excitement—spent money profusely, believing he was about to realize a fortune. Became nervous and dyspeptic, and was induced to leave home for recreation. While absent, had an epileptiform seizure, with transient mania, for which he was placed in a hospital for the insane. Was soon removed, against advice, the more prominent symptoms having subsided. Delusions soon appeared again, with excitement requiring restraint, and he was admitted here July 18th.

Complained, on entrance, of severe headache. Anxious to talk of his delusions, which are all of an extraordinary nature. Says he can teach the guitar, perfectly, in a lesson of ten minutes, and intends, by so doing, to pay off the national debt! Pupils are very small, but shows no other signs of motor disturbance. Plays billiards and several musical instruments well. General paresis suspected from the character of the delusions.

Aug. 20th.—His excitement has abated somewhat, but he is self-confident and boastful. Has a dull pain in head and neck, with blurred vision after eating or exercising.

Aug. 26th.—Attended a musical party, and was very gay and brilliant in conversation. After retiring, had an attack of "smothering" as if his "heart turned over," and was thoroughly frightened by it. Afterwards had a slight thickness of speech.

Oct. 30th.—Began to paint, and succeeded tolerably well. Is more uniformly calm.

Dec. 8th.—Does not paint as well, but is very hopeful, and gets some orders, which encourage him immensely. Expects to go out soon. Disavows his delusions, but is nervous and has a twitching of the eye-lid.

Feb. 20th.—Is getting excited, and his estimate of his work increases as its quality deteriorates.

Feb. 21st.—Highly excited. Spoiling his pictures, by broad touches of crude color, which he calls "putting in effects."

23d.—Severe attack of mania. Lies in bed, surrounded with scrawls, which he calls Italian poetry. Says, six languages have "come to him." Head very hot, and pupils the size of a pin head.

26th.—Noisy and destructive. Refuses food and medicine. Pulse 120.

27th.—Excitement increasing and uncontrollable; says his "head is a solid diamond," and he wants a "black velvet suit, to set it off!"

March 1st.—Excitement subsiding. Eats and sleeps, but is quite exhausted.

3d.—Seems dull and absorbed in his fancies.

4th.—Has griping pains in the bowels, with vomiting and tenderness. Pulse 84.

5th.—Pain more severe, and bowels tympanitic. Talks rationally for a few minutes, and then mind wanders.

6th.—Died of peritonitis.

Autopsy.—Dura mater adherent in patches to calvaria. Arachnoid opaque, with white spots near longitudinal sinus. Much effusion, and six ounces of serum drained from the brain and cord. Vessels of pia mater large, tortuous and congested. Grey matter dark and well defined. Puncta prominent. Sacculated appearance of choroid plexus marked on both sides. *Extensive peritonitis.*

The preceding cases will serve as fair specimens of the *twenty*, received here in the last three years. Both the mental and motor symptoms were generally well marked on entrance. The account of the first stage of the disease, obtained from friends, was usually vague and unsatisfactory, and

the statements concerning the patient's former habits were almost equally so.

The average age, in 20 cases, was 39 years. The number of females, 1. The average duration, after admission, 7 months; and the approximate duration before entrance, 8 months.

The predisposing causes were, intemperance, 6; hereditary insanity, 4; sexual excess, 3; sunstroke, 1; injury to head, 1; neither of the above, and no other cause assigned, 5.

The belief in its frequent origin in the abuse of alcohol, may have been exaggerated by the similarity between some of its symptoms and those observed in habitual drunkards. Case VI., for instance, has many characteristics of chronic alcoholismus. The constant trembling, the apprehensions and hallucinations, the epileptiform attacks, the inappetency and partial vigilance, throw some doubt over the case. The motor paresis was, however, well marked and progressive, and the morbid appearances those common to the other cases.

I have not detailed the treatment, as it was merely palliative, and suggested by the exigencies of each case. A partial remission of the most prominent symptoms has once or twice occurred, but the disease has invariably proved fatal at last.

Of 10 cases of general paralysis, treated at the City Hospital in 1867, 3 are reported as discharged "well," and 5 "relieved." This is quite contrary to the usual course, when the mind is also affected, and a comparison with these cases would be instructive.

In none of our patients had there been a previous attack of insanity, as might have been expected if general paresis is simply an intercurrent disease of the insane. On the contrary, the history of each case has pointed to a special and progressive paresis of both the physical and mental powers.

The grosser cerebral lesions have been quite constant, indicating the grey matter of the hemispheres, as the chief seat of disease. The overgrowth of connective tissue and the varicose state of the capillaries, described by Rokitansky, Wedl, and others, have not yet been demonstrated here. In fact, time, as well as skill, has been wanting, to make those careful and special examinations which might be of scientific interest.

THE lunatic hospital at Middletown, Ct., said to be one of the most perfect of its kind in the country, is nearly completed.

Bibliographical Notices.

On the Signs and Diseases of Pregnancy. By THOMAS HAWKES TANNER, M.D., F.L.S., Member of the Royal College of Physicians, &c. From the Second and Enlarged London Edition. With four Colored Plates and Illustrations on Wood. Philadelphia: Henry C. Lea. 1868.

FROM a cursory survey of this book we derived considerable expectations of its value. Those expectations have been more than realized upon a more careful examination of its contents. It seems to us quite complete in both branches of inquiry—the signs of pregnancy on the one hand, and its diseases on the other. We award high praise when we venture on the assertion, that the work is on a level with Montgomery in the first mentioned department, and with Churchill in the second. The style is lucid, interesting, and not diffuse. The paper, typography and illustrations are excellent.

The statement, however, on page 22, that "the limits of the generative faculty in women are those of the function of menstruation," etc., seemed to us on reading it to require qualification, or explanation; and we are not quite satisfied that it should have been left to stand as it does, though we find its apparent short comings supplemented on page 77, in these words—"neither should it be inferred, that during each menstruation the rupture of a Graafian vesicle necessarily takes place; or on the other hand, that a vesicle may not rupture without any external flow of blood. It is only by allowing that the ovarian portion of menstruation may occasionally occur without the uterine part, that those rare cases can be explained in which pregnancy has occurred prior to any menstrual flow, or in which pregnancy has taken place during lactation without the return of the monthly periods."

We commend to the attention of the reader the following passages, as specimens of the style, and as containing points worthy of learned minds. "It must be remembered that retention of the menses may not only occur in women who have never had any external manifestation of the catamenial flow, but also in those who have even borne children. Thus, the lips of the os uteri have suffered from adhesive inflammation, owing to the improper employment of caustics; or to the careless use of instruments during labor; or to some blow or

accident; or to the criminal introduction of probes, pieces of whalebone, &c. to induce abortion. Instances are known where attempts to destroy the product of conception in the manner just mentioned, have failed in their object, and yet have produced so much mischief that ulceration and adhesion of the labia uteri have followed. In such, when the pains of labor have come on there has been of course no outlet for the child, and unless an opening has been made at the site of the os, the uterus has either ruptured, or the woman has died undelivered." (Page 191.)

"Dr. Jörg fixes the duration of gestation as 280 days from the time of conception, and will not allow that this period is liable to fluctuation, as in the females of many classes of animals. He seems to think that instances of *protracted parturition* have been mistaken for *protracted gestation*. A case in point is detailed, in which labor commenced on the 280th day; but owing to the weakness of the pains and the length of the remissions, the child was not born until after the lapse of fourteen days. No doubt many medical men would have set down such a case as one of gestation prolonged to 294 days. I am acquainted with the history of a more extraordinary case, which may be briefly related, as there is no doubt in my mind that it is perfectly authentic. The chief facts as they were detailed to me by my patient are these:

Mrs. F., a lady of delicate health, forty-one years old, was delivered of her third child, in Manilla, on the 10th March, 1847. When the infant was fourteen days old it was weaned; the climate, it is said, being too hot to allow of European ladies suckling their offspring. At the end of the next month, the catamenia came on, and after continuing for four days ceased on the 30th April. The courses did not again return, but my patient believes that she did not become pregnant until the 20th May; while she is certain that intercourse never took place after that date, on account of the serious illness of her husband. This gentleman died on the 31st August, and Mrs. F. soon afterwards returned to England. She calculated that her labor would come on about the middle of February, 1848; as it ought to have done, supposing her opinion as to the day of fecundation correct. If we reckon in the usual manner, and say that labor should have supervened 280 days after the last catamenial period, it will be seen that delivery ought certainly to have taken place on the 24th February; but if we adopt the better plan—so seldom possible, however—and calculate 275 days from the time of the fruitful coitus, then the accouchement was to be expected on the 19th Feb. Now it is remarkable that labor pains first manifested themselves on the 18th Feb., so that everything was prepared for the immediate birth of the infant. But, at the end of a couple of hours, the pains went off, and did not return till the next day. Again they ceased for twenty-four hours, and again returned; and this happened every day for three weeks. Sometimes only two or three pains were experienced, sometimes the parturient efforts came on frequently for half an hour or a little longer, and then subsided. She was delivered of a live girl, remarkable for its size, on the 11th March; being twenty-two days—for it was leap year—from the 19th Feb., or 297 days from the last coitus." (Page 213.)

Perhaps it would be fair to give such phenomena a rank between the regular contractions of the uterus during gestation—called spurious pains—and true labor.

Dr. Tanner goes on to say, "Now it must not be imagined from the foregoing, that I agree with Dr. Jörg and believe that all the cases in which gestation continues beyond 280 days are merely examples of tardy labor. On the contrary, it seems to me that such a position is quite untenable; independently of its being at best merely the same thing under a different name, a specious distinction of little, if any, value." (Page 214.) P.

The Institutes of Medicine. By MARTYN PAINE, A.M., M.D., LL.D., Professor of the Institutes of Materia Medica in the University of the City of New York; Corresponding Member of the Royal Verein für Heilkunde in Preussen; Corresponding Member of the Royal Medico-Chirurgical Academy of Turin, &c. &c. Eighth Edition, Revised. 8vo. Pp. 1145. New York: Harper & Bros. 1867.

As this book has reached its eighth edition, it may perhaps be assumed that it is familiar to most of our readers.

Two hundred and thirty-six pages are devoted to therapeutics, and of those 88 relate to bloodletting, of which Dr. Paine is a staunch advocate in all periods of life, from infancy to old age. "I am still apt to think, with Botalli, that 'one hundred thousand men perish from the want of bloodletting, or from its not being timely

employed, where one perishes from excessive bleeding when prescribed by a physician.' "

Materia Medica for the Use of Students. By JOHN B. BIDDLE, M.D., Professor of Materia Medica and General Therapeutics in the Jefferson Medical College, Member of the American Philosophical Society, Fellow of the College of Physicians, &c. &c. Third Edition, Enlarged. With Illustrations. Pp. 384. Philadelphia: Lindsay & Blakiston. 1868.

THIS neatly printed volume aims to give in small compass a succinct account of all the articles of the materia medica in use in the United States, and to serve as a text-book in medical colleges. Most if not all of the articles recently introduced into the materia medica, have been added in the present edition, and the various new anæsthetics, local or general, which are now being urged upon the profession by their discoverers or partisans, are briefly noticed. We were a little surprised to observe the small space devoted to carbolic acid, in view of its present general and extended use, but perhaps the author considered that in a few years, when it, like many other remedies, has had its run, the space here given to it will not seem unsuitable. The student will find here many things important to be known concerning the various drugs, but the book cannot of course supply the place of the "Dispensatory" and other larger works. The wood-cuts of different plants are fairly executed, but the selection of those which were to be thus distinguished might have been more judiciously made; a plant so familiar to all as the dandelion certainly scarcely required to be illustrated, when so many others less common were necessarily neglected. A full index renders the reference to any of the subjects contained in the book very easy.

Goff's Combined Day-Book, Ledger and Daily Register of Patients, for the Use of Physicians. Washington. 1868.

THE end Mr. Goff seems to have had in view in preparing this book was simplicity, and in this he has certainly succeeded. Absolutely no knowledge of book-keeping is required with this method. The whole yearly account of a patient or of a family; the number of visits; the payments made and the amount still due, all appear in a very small space and may be seen at a glance. The character of the visits is shown by a system of abbreviations, similar to those ordinarily used for such purpose. The only want seems to be a form for recording cash visits at the physician's office.

Medical and Surgical Journal.

BOSTON: THURSDAY, AUGUST 27, 1868.

EPIDEMIC CHOLERA.

CIRCULAR No. 1, 1868, Surgeon-General's Office, containing a report on Epidemic Cholera and Yellow Fever for the year 1867, offers much that is instructive as to the mode of propagation of the former of these diseases.

In 1866, the number of deaths among officers and men was 1,269.

"In its progress, the disease followed the lines of travel rather than any general westward course, and, in the case of the army, it especially followed the movements of bodies of recruits, which were the most important movements from infected points during the year."

In view of this fact, the Surgeon-General directed the enforcement of quarantine regulations, and with apparent effect, for the number of deaths during 1867 was only 230, although the proportion of deaths to the whole number of cases was slightly greater, being 1 to 2·19 in 1867, and 1 to 2·22 in 1866.

"In a general way, it may here be said that the experience of the army during 1867 confirms the views in favor of quarantine formed during 1866, and especially confirms the opinions formed with regard to the danger of distributing recruits or other bodies of troops from an infected point to other garrisons. An additional point, however, is also suggested by the experience of 1867, namely: The possibility of cholera re-appearing on the following year at places visited by it during an epidemic, if the most stringent hygienic precautions are not adopted."

The first part of the summer of 1867, the cholera re-appeared at certain points in the Valley of the Mississippi and Westward, but at most of these places, at least, it appeared first among the citizens, where proper hygienic precautions were not taken.

"Had the cases thus originating been

the only ones, the mortality from the disease would have been comparatively small; but the unfortunate movement of infected troops and trains during July carried the pestilence across the plains to every post on the Arkansas river and the Smoky Hill Fork, and three other notable instances of the transplantation of the disease occurred: one on the route between Forts Gibson and Arbuckle, one in the case of the posts in New York harbor, the third in that of certain recruits distributed from New York, by way of New Orleans, through Texas."

Of some of these instances of transplantation we shall give a brief account.

During the first part of June, a number of cases of diarrhœa occurred among the soldiers of the 38th U. S. Colored Infantry, then stationed at Jefferson Barracks, near St. Louis, where cholera had prevailed extensively during the previous summer. On the 9th of June, Co. K of this regiment went to Fort Riley, and ten days later Companies D and F, leaving Fort Riley for Fort Harker on the 19th and 22d. These men were suffering much at this time from diarrhœa.

At Fort Riley, where there had been many cases of cholera the year before, but where very stringent hygienic measures were now employed, one case occurred the day of the departure of the last of these companies; twenty days after, another case, the man having just come from Fort Harker, where the disease was then rife; and in November two more, both new comers, and one, at least, having been affected with diarrhœa at St. Louis.

At Fort Harker, the disease appeared shortly after the arrival of the companies above mentioned. There were forty-six cases and thirty-one deaths in June, July and August, the average strength of the command being 281. The hygienic condition of the fort and vicinity was very bad at the commencement of the outbreak.

On the 28th of June, the same day on which cholera appeared at Fort Harker, companies D and F of the 38th left that place to march to New Mexico. At the close of the first day's march a case of cholera appeared among the men, and cases occurred afterwards daily till the command reached Fort Lyon, Colorado Territory. "The posts visited on this route were Fort Zarah, Fort Larned and Fort Dodge, and the arrival of the detachment at each of these stations was promptly followed by the appearance of cholera."

The report goes on to show the spread of the disease from Fort Harker to various other points, carried, apparently, by detachments of troops.

"At Fort Columbus, New York Harbor, there were thirty-five cases of cholera and eighteen deaths during August and Sept. The first case occurred on the 21st of Aug. The patient was a recruit who had arrived the evening previous with a detachment of recruits from St. Louis, Missouri, where cholera was prevailing. One man had died on the road with symptoms similar to cholera, and the man attacked on arriving at Fort Columbus had been in attendance upon him."

No additional cases occurred here till the 31st of August, when there were ten new cases, four of these being among recruits who had arrived three days before. At Fort Wood, New York Harbor, the disease appeared to have been brought in a similar manner.

Late in November two large detachments of troops left New York Harbor, for Texas, by steamer; both stopped at New Orleans, where cholera was prevailing among the citizens, for one day; and in both cholera appeared a day or two later, but in a mild form. At Galveston, three men of the 17th Infantry, into whose barracks the first party of recruits were received, were attacked, but all recovered.

"The extreme mildness of the cases among these recruits cannot escape attention; there were among them, in all, sixty-three cases and but nine deaths. This happy result, which is attributed, by the medical officer at Galveston, to the use of tannin in large doses, was observed also at Hempstead, where reliance appears to have been placed on camphor and opium pills; and at Onion creek, where calomel was employed in large doses."

The percentage of deaths to cases was, both in 1866 and 1867, somewhat greater among colored than white troops.

W.

We have just received the first number of the *California Medical Gazette*, a month-

ly journal published at San Francisco by A. Roman & Co. The name of the Editor does not appear. If the articles in the present number are a fair sample of what may be expected for the future, we congratulate our California brethren on their new possession. The type and paper are above all criticism.

FERRO-MANGANIC PREPARATIONS.—The ferro-manganic preparations and their introduction into therapeutics are the consequence of numerous physiological and pathological observations.

The fact that iron is one of the normal elements of the blood has been universally admitted since the demonstrations of Menghini, Fork and Laibach.

Now, as Scheele's and Gahn's discoveries in 1774 showed that manganese is invariably associated with iron in organic nature, a suspicion arose, that it existed also in organisms containing iron, and it was subsequently found not only in a multitude of plants, but also in the blood, flesh, milk, &c., as a constant accompaniment of iron.

Fourcroy and Vauquelin had already discovered manganese in bone-ashes; afterwards, in 1830, Wurzer found it in calcined blood; Millon in 1847; Marchesan in 1848; and, lastly, Hanon, in 1849, formally declared, after further diligent research, that manganese is the constant and natural associate of iron in the blood.

Finally, Burin du Buisson, acting on the suggestion of Dr. Pétrequin, undertook to verify these researches, and acquired the certitude, not only of the simultaneous presence of manganese with iron in the blood, but also found it even in healthy pus.

Such facts could not fail to lead to the inference that, as morbid elements are produced by the absence or deficiency of iron in the blood, the same effect must likewise occur with regard to manganese, and consequently that, whenever the exhibition of iron alone failed to cure chlorosis, the sole cause was that these chalybeates could not supply the economy with the manganese, which was wanting.

Repeated experiments soon confirmed the truth of these conclusions. Numerous analyses of the blood demonstrated, that the diminution of the proportion of iron in the blood of chlorotic patients was in constant ratio with the diminution of manganese, and many obstinate cases of chlorosis, which had resisted all treatment with chalybeates, were completely cured by the ferro-manganic preparations.

These facts led Dr. Hanon to the singular theory which consisted in distinguishing two kinds of chlorosis, one arising from a deficiency of iron, the other from a deficiency of manganese. But as Dr. Hanon was unable to give a diagnosis of the difference between these two kinds of chlorosis, we cannot but regard as empirical his method of administering manganese by itself in cases for which iron alone had produced no result.

Chemical experiments having demonstrated, as above stated, that manganese exists in the blood simultaneously with iron, and in clearly determined proportions, the absence of one being always attended with a proportional decrease of the other, this fact supplied a most reasonable motive for the simultaneous use of manganese and iron for all cases in which the exhibition of the latter alone was inefficient.

The subsequent experiments of Dr. Pétrequin, and after him of Dr. Gensoul, Gubion, Contagne, Bonnaric, Delorme, and many more, perfectly justified this theory, and we can assert, without fear of error, that it is not only rational but indispensable in many cases to prescribe the ferro-manganic preparations instead of the simple chalybeates hitherto employed.

Aware of the various requirements of the true practitioner, M. Burin du Buisson has endeavored to supply the ferro-manganic preparations in the most various and most appropriate forms, without making any mystery of his processes, which he has communicated to the scientific world by publishing an account of his labors.

We will here briefly recapitulate the names of M. Burin du Buisson's different preparations, which meet the most diversified demands of therapeutics, and are equally easy and agreeable to take. They are:—

1st. Effervescing ferro-manganic powder.
2d. Carbonate of iron and manganese pills.
3d. Lactate of iron and manganese lozenges.
4th. Lactate of iron and manganese syrup.
5th. Iodide of iron and manganese syrup.
6th. Iodide of iron and manganese pills.
7th. Manganic iron reduced by hydrogen.

All these medicines are used in cases for which iron and iodide of iron were formerly employed alone. Thus, according to Dr. Pétrequin, in all cases of chlorosis occurring in young females at the age of puberty, as also in women who have reached the critical period; in passive hæmorrhages; in certain cases of cachexia resulting from

long intermittent fevers; morbid appearances in the heart and lungs; palpitations accompanied with giddiness, and dyspnœa with obstinate cough and disease of the lungs, are seen the excellent effects of the ferro-manganic preparations, aided by sedatives, such as foxglove, cherry-laurel water, morphine, belladonna, and far more speedily than by the use of those remedies alone.

In all cases the ferro-manganic preparations are unequalled for rapidity of effect and permanence of cure—results so rarely secured by simple chalybeates.

Dr. Pétrequin always begins his treatment with the effervescing ferro-manganic powder, and at the same time prescribes two of the pills daily, these last being subsequently replaced by the lozenges in order to avoid fatiguing the digestive organs. The ferro-manganic syrup generally completes the treatment.

All these medicines are administered at such times of the day as are most favorable to their digestion and assimilation. For instance, the pills and lozenges before meals—one before each; the ferro-manganic powder is best taken in a little wine, the syrup before breakfast in doses of one or two table-spoonfuls.

FUNCTIONS OF THE PANCREAS.—Notwithstanding the numerous and careful investigations that have of late years been directed to the elucidation of the functions of the pancreas, the recent researches of KUHNE, FUDAKOWSKI, and of our own countryman Dr. M. Foster, show that much still remains to be learned. It is now very generally admitted that the pancreatic juice acts upon the three important alimentary groups included under the heads of the Albuminous, the Oleaginous, and the Farinaceous. It converts all the albuminous or proteic compounds into a substance which is not coagulated at the boiling temperature, and possesses a high degree of diffusibility, termed peptone; it emulsifies fat more perfectly than any other secretion in the body; and, lastly, it exerts an amylolytic power, as Dr. FOSTER terms it, over starch, rapidly converting it into grape sugar or glucose. What is it that enables this clear, viscid, transparent fluid to effect such wonderful changes? Is the active agent single, or is it multiple? And what is the nature of the action in each instance? Is it analogous to the agency of a ferment—a catalytic action—so that a minute portion of the juice will alter an indefinite quantity of the substance acted on; or is it a simple case of chemical combination?

Some progress has been made in replying to these questions. In the first place, we may refer to KUHNE's observations. It is generally stated in the text-books that leucin and tyrosin, substances that are well known to result from the decomposition of albuminous compounds, are constituents of the pancreatic tissue, and are eliminated in the secretion. KUHNE shows that they probably result from the action of the juice on peptone which has already been formed from albumen or other proteic compound. This is a matter of considerable interest; for it shows that already, while the food is still in the intestinal canal, a portion of it undergoes decomposition—a true luxus-consumption—into substances that are ordinarily regarded as belonging to the products of regressive metamorphosis. And it is also remarkable that the active agent of the pancreatic juice can effect, at a temperature of 100 F., the same changes in albumen as may be accomplished without the body by the addition of an acid and the application of a boiling temperature. It is probable that the substance termed Pancreatine is that to which this power is to be attributed. We may just add the results of one experiment: 100 parts of dry fibrin yielded 61 parts of peptone, 3.86 of tyrosin, 9.1 of leucin, and 26 parts of unknown substances, amongst which were anilin-like bodies, giving a red or violet color with chlorine, water, or chloride of calcium.

Dr. FOSTER's researches have been chiefly directed to the determination of the nature of the substance by which starch is converted into sugar. This amylolytic power, though commonly stated to be possessed by all albuminoid compounds at a certain stage of decomposition, is in reality limited to certain fluids; and these manifest it as well when fresh as during any subsequent stage of decomposition. Thus human blister-fluid, the vitellin of the fowl's egg, and the serum of sheep's blood, are powerless upon starch when fresh, and equally powerless in all stages of decomposition. But, from Dr. FOSTER's investigations, it seems doubtful whether this remarkable power is really associated with any of the ordinary forms of albumen; it is certainly not with pancreatine, since, as he has shown, if pancreatic juice or infusion of pancreas be saturated with sulphate of magnesia and filtered, the whole of the so-called pancreatine is retained on the filter, and yet the fluid which has passed through the filter will be found to have lost a fraction only of its amylolytic power. In the same manner it may be shown, in the case of saliva, that

the converting power depends neither on the mucus nor on the globulin, since it retains its energy when freed from both of these substances. The ferment, therefore, seems to be something quite separate and distinct from the albuminous compounds. And this view is materially corroborated by the facts that the amylolytic power is by no means commensurate with the quantity of proteids present, and that the presence of neutral salts, even to saturation of the solution, has no appreciable effect. It is remarkable, however, that it should always occur in fluids containing proteic or albuminous compounds, and that it should lose its powers at about the same temperature as effects the coagulation of the various albuminous compounds. It has been proved by Dr. Foster that in the case of saliva, and therefore we may with all probability assume in the case of pancreatic juice, the ferment is *not* consumed during its action on starch; which is fully borne out by the well-known fact that a definite quantity of amylolytic fluid will sooner or later convert any quantity of starch into sugar. Dr. Foster has made a few additional investigations on the distribution of the amylolytic ferment, and has found it to exist in the tissue of the liver, in the pleural and peritoneal fluids, and in the blood and urine. He conceives that the disease diabetes is due, not to any excess, but rather to some modified action of ferment; since the amount of ferment passed in the urine per diem in six cases in which he examined it, in no way exceeded that passed by persons in health, and, further, the blood was not found to be more amylolytic than in health. These experiments we hold to be in the right direction for affording an explanation of this singular disease, and we trust Dr. Foster will be induced to continue them.—*Lancet.*

Early Dentition.—M. Gueniot related to the Société de Chirurgie the case of an infant which, when nine days old, exhibited a spontaneous expulsion of the two middle upper incisor teeth, together with the destruction and expulsion of the dental bulb. There was some gingival stomatitis, but no abscess of any kind. The teeth resembled two solid shells, covered with a thin layer of enamel. These cases are rare. In connection with this subject M. Guéniot enumerated several celebrated persons who are said to have been born with teeth, such as Mirabeau, Mazarin, Louis XIV., to which he would have added that of M. Broca had not this gentleman disclaimed any right to such a distinction. Believing the fact generally admitted, that infants are occasionally born with teeth ready cut, we are greatly surprised to find so experienced an accoucheur as M. Blot utterly denying its accuracy. He says he has never met with an instance of its occurrence in 30,000 infants that have come under his observation, and the experience of his colleagues is just as negative. However, that unfailing repertory of information, M. Giraldès, was enabled to refer to numbers of cases of children born with one or more teeth; and he has met with similar cases in his own practice. M. Besneir observes also that such cases are familiar enough to matrons, who are in the habit of at once extracting the teeth. We suspect that this operation must have been already performed in cases that otherwise would have attracted M. Blot's attention.—*Med. Times and Gaz.*

Poisoning by Strychnia—Treatment by Chloroform Inhalations — Recovery. — A girl, four years of age, was admitted to the London Hospital April 20, with well-marked symptoms of having been poisoned with strychnia. The account given by her friends was as follows:—Her grandmother had, half an hour prior to the child's being brought to the Hospital, given to her a powder for destroying mice, in mistake for an ordinary rhubarb powder. The child very soon became convulsed, and had had two "fits." She had been taken to a chemist, who gave her an emetic, which did not act. She was then brought to the Hospital. As the Medical officer was engaged in the wards, to prevent any delay the case was seen by the House Surgeon on duty, Mr. McCarthy. The child was lying on her left side; there was well marked opisthotonos, the head being drawn very much backwards; her expression was very anxious; eyes widely opened; pupils dilated; lips livid and retracted; walls of chest fixed; respiration irregular; pulse weak, rapid, and almost imperceptible, and every muscle in the body in a state of incessant twitching. This last symptom became greatly aggravated whenever the child was touched. Chloroform was administered without delay, and the little patient became almost instantaneously insensible. The pulse became full and strong, the respiration regular, and the anxious expression of countenance disappeared. The child was kept under the influence of chloroform for an hour and a half. During the earlier part of this period, whenever the chloroform ceased to be administered, the slightest

touch on any part of the child's body produced twitchings in every muscle. After about three quarters of an hour, however, the orbicularis oris was the only muscle so affected. The child vomited a quantity of fluid, with some half digested food, about half an hour after admission. When the child had been kept insensible for an hour and a half, the chloroform was omitted, as the twitchings had not recurred for some time. On awaking, the child was perfectly sensible and composed, and, with the exception of some occasional twitchings of the mouth and spasms of the arms during the day, had no unfavorable symptoms, and was discharged quite well on the third day.

A powder similar to the one she had taken was tested, and was found to contain strychnine.—*Med. Times and Gazette.*

Styptic Paper.—M. Gustave Gabillon, of Paris, has discovered a method to render more effectual and convenient of application, and, at the same time, preserve the hæmostatic properties of perchloride of iron, or, as it is sometimes called, muriate of iron. It is well known that this substance possesses these properties in a high degree, and paper, or any tissue prepared with it, instantly stops bleeding when applied to wounds. It is inconvenient to carry about the solution of ferric chloride, nor is it easy to apply it. M. Gabillon's invention consists in his method of making and preserving the paper. He first dries, and then coats the paper or other tissue used with a protecting composition, to prevent its destruction by the perchloride of iron. The method of application is as follows: the paper is first dipped in a solution made of one pound of gum benzoin of the first quality, one pound of rock alum, four and a third gallons of water; this mixture is heated in a vessel, carefully tinned inside, up to the boiling point, and the solution is to be kept boiling for four hours, and skimmed from time to time. The water evaporated is to be replaced by the same quantity of fresh water, and, as soon as the solution is cooled, it is to be filtered off. The paper or tissue is then dipped into it, and kept there till sufficiently saturated; it is then to be carefully dried. When dry, a solution of perchloride, in a more or less concentrated state, is applied by a brush or roller. The paper or tissue thus prepared is folded up and preserved from the action of the air by wrapping it in a piece of waterproof taffeta, prepared with the addition of resinous substances, and in this manner it can be preserved any length of time in a state always ready for use.—*Student and Intellectual Observer.*

Our Ancestors.—Were they pigmies, or giants, apparent apes, or possible philosophers? Have we improved upon their structure? or are we physically degenerate? Strangely enough, this question of fact is still at issue. M. Lartet, at the last session of the Sociétés Savantes, gave an account of his scientific explorations in Dordogne, and of the bones, including three crania, which he examined, and of which the age is fixed as of the earliest quaternary period—the age of the mammoth. He dwells on the remarkable length and prodigious strength of the bones of the limbs. With this, the crania are remarkably large; and the brains which filled these capacious cases must perforce have been of considerable size. These skulls, he adds, are far from presenting the characters of inferiority which the school of "development" would attribute to our ancestors.—*British Medical Journal.*

Collodion in Treatment of Nævus.—Prof. L. S. Joynes, of the Medical College of Virginia, publishes in the *Richmond Medical Journal* a case of nævus successfully treated by the continued daily application of collodion. "The contraction which ensued upon the drying of the liquid was remarkable. The prominence of the discolored portion of the cheek disappeared; the integument all around was strongly puckered, and through the coating of dried collodion the discoloration was seen to be much diminished. The application seemed to cause not the slightest pain or inconvenience to the child." Possessing, as it does, the advantages of causing no pain and leaving no scar, the remedy, even though success would be but the occasional result, should receive a fair and full trial before resorting to more active operative proceedings, as the caustic, knife, ligature or seton.—*Humboldt Med. Archives.*

To Harden Plaster of Paris.—The *Scientific American* says that if plaster of Paris is mixed with water from quick-lime and a little glue, it will be less liable to crack than with pure water.

Dr. Charles L. Ives, of New Haven, has been appointed Professor in the Yale Medical School, in place of the late Dr. Worthington Hooker.

Selections and Medical Items.

MEDICAL EDUCATION IN SWEDEN.—The *Lancet* of June 6th, gives the following as the curriculum of the University of Stockholm—probably the most exacting of any in Europe: After two years' general education in the University, the candidate for medical studies must submit to a preliminary examination in Latin, Mathematics, Chemistry, Physiology, Botany, and Geology. He then performs dissections for two years, and works at Practical Chemistry for six or twelve months, at the same time attending hospital practice at Stockholm for six months, with voluntary attendance at the military hospital, followed by four months' practice at the hospital of Upsala. At the end of the four years thus occupied comes the first medical examination in Anatomy, Chemistry (including analysis of urine, bile, and other secretions), Pathological Anatomy, the diagnosis of disease, Surgery, and Midwifery.

Then follows hospital practice at Upsala or Lena, and at Stockholm at the Seraphim Hospital of 300 beds, the student being occupied from 8 A.M to 3 P.M. in case-taking, making *post-mortem* examinations, and writing a description of *post-mortem* appearances. Twice a week also, for two hours at a time, the student works in the laboratory at the chemistry of morbid secretions. Subsequently attendance is given at the Hospital for Sick Children for four months, four times a week; and at the same time the student attends Midwifery for four months in a hospital of forty beds. Then follows the study of Syphilitic Diseases for two months, Insanity two months, Legal Medicine and legal protocols two months, and Practical Pharmacy.

All the preceding courses are necessary for the license to practice; but to become M.D. or professor (there being no different qualifications for physician and surgeon) a candidate must be house-surgeon a year, and study abroad one year. All the medical lectures and instruction are free in Sweden, the Government paying the professors. The professional course may be prolonged to ten years.

IODIDED OPODELDOC.—With a view of bringing this preparation more to the notice of the profession, the following formula is given:—Take of iodide of potassium, eight troy ounces; alcohol, 30° Baumé, two pints. Mix the above and form a perfect solution. Animal soap, finely shaved, fourteen troy ounces; alcohol, 30° Baumé, two pints. Dissolve the soap in the alcohol in a flask over a sand bath; when dissolved, mix the two solutions and add oil of garden lavender, two drachms.

This is usually dispensed in one or two-ounce wide-mouth vials, which should be filled while the opodeldoc is warm and in a fluid condition; when cold it forms a translucent mass, and as an external application, possesses advantages over the ointment of iodide of potassium.—*St. Louis Med. Reporter.*

EMPLOYMENT OF SULPHOCYANIDES IN TONING AND FIXING.—M. Civiale stated at a meeting of the Société de Photographie, that in the summer of 1867 he fixed about 700 positive proofs by means of potassium and ammonium sulphocyanides. A print, one half of which had been protected from the light, the other unprotected, and which had been exposed for three months, showed only a uniform tint.—*Chemical News.*

Dr. HEINE, who, during the illness of the late Prof. Weber, proved himself to be a very excellent teacher of Surgery, has been appointed Professor of Medicine at the University of Heidelberg.—*Allgemeine Medical Central Zeitung.*

THE APPETITE FOR MEDICINE.—It was stated at the Paddington Board of Guardians that 138 gallons of medicine had been dispensed in two months, including 30 gallons of quinine mixture. It was remarked that the inmates were never satisfied unless they were taking medicine.—*London Lancet.*

OPERATIONS ON THE VOCAL CORDS.—At a meeting of the Royal Medical and Chirurgical Society in London, on May 26, seven cases were reported in which morbid growths were removed from the vocal cords by the aid of the laryngoscope.

THE Sixteenth Annual Meeting of the American Pharmaceutical Association will be held in Philadelphia on the second Tuesday of September.

MEDICAL DIARY OF THE WEEK.

MONDAY, 9, A.M., Massachusetts General Hospital, Med. Clinic. 9, A.M., City Hospital, Ophthalmic Clinic.
TUESDAY, 9, A.M., City Hospital, Medical Clinic; 10, A.M., Medical Lecture. 9 to 11, A.M., Boston Dispensary. 10–11, A.M., Massachusetts Eye and Ear Infirmary.
WEDNESDAY, 10 A.M., Massachusetts General Hospital Surgical Visit. 11 A.M., OPERATIONS.
FRIDAY, 9, A.M., City Hospital, Ophthalmic Clinic; 10, A.M., Surgical Visit; 11, A.M., OPERATIONS. 9 to 11, A.M., Boston Dispensary.
SATURDAY, 10, A.M., Massachusetts General Hospital Surgical Visit; 11, A.M., OPERATIONS.

BOOKS AND PAMPHLETS RECEIVED.—Circular No. 7. War Department. Surgeon-General's Office. A Report on Amputations at the Hip-joint in Military Surgery. —The New York Medical College for Women. Sixth Annual Announcement, 1868-69.—Catalogue of Medical Books published by Lindsay & Blakiston, Philadelphia.

DEATHS IN BOSTON for the week ending Saturday noon, August 22d, 138. Males, 79—Females, 59.—Accident, 4—aneurism, 1—apoplexy, 1—asthma, 1—inflammation of the bowels, 1—disease of the brain, 5—inflammation of the brain, 2—bronchitis, 4—cancer, 1—cholera infantum, 28—cholera morbus, 1—consumption, 16—convulsions, 3—croup, 1—cyanosis, 1—debility, 3—diarrhœa, 7—dropsy, 1—dropsy of the brain, 2—drowned, 1—dysentery, 11—scarlet fever, 2—typhoid fever, 1—gastritis, 1—disease of the heart, 1—hæmorrhage, 2—hernia, 1—intussusception, 1—disease of the kidneys, 3—inflammation of the lungs, 6—marasmus, 4—measles, 1—old age, 5—paralysis, 3—peritonitis, 2—premature birth, 2—pyæmia, 1—syphilis, 1—tumor, 1—unknown, 5.

Under 5 years of age, 76—between 5 and 20 years, 11—between 20 and 40 years, 21—between 40 and 60 years, 12—above 60 years, 18. Born in the United States, 106—Ireland, 24—other places, 8.